

# amr news

vol. 2, no. 110 September 13, 1971

amr news, published every monday, wednesday and friday by amr international, inc., 280 park ave., n.y.c. 10017. second class postage paid at new york, n.y. and at additional mailing offices.

AMR presents an unusually authoritative and comprehensive three-day seminar designed to provide up-to-date information on data base and file management systems.

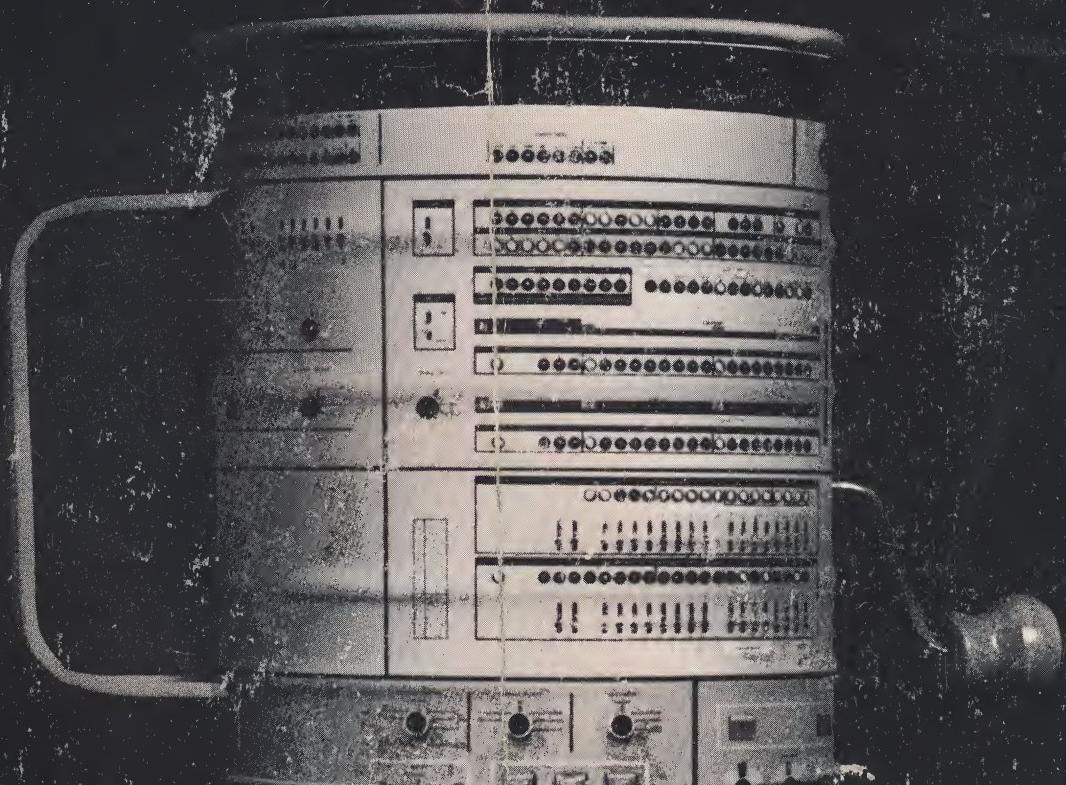
# Data Base Design

Washington D.C.—September 27-29

New York—October 27-29

Chicago—November 29-December 1

San Francisco—December 15-17



**amr** international, inc.  
ADVANCED MANAGEMENT RESEARCH

2  
4  
Q  
3  
7  
8  
F  
0  
1  
P  
5  
9

# Data Base Design

**Washington D.C.—September 27-29**

The Mayflower

**New York—October 27-29**

The Roosevelt

**Chicago—November 29-December 1**

The Continental Plaza

**San Francisco—December 15-17**

The St. Francis

Highly competitive companies are actively researching and developing "Data Base" and "Data Management" systems to provide vitally important information support to management. An effective Data Base system gives your company a powerful resource by providing rapid support of critical decision making, so necessary in today's competitive environment.

This course has been developed to provide you with a superior analysis of the current state of the art of data base development.

Beginning with a brief review of the basic concepts, the course should provide you with an in-depth approach to understanding and using the latest techniques for developing and implementing an effective data base system.

Major areas to be covered include effort and economic justification required, file structure design, evaluation criteria and building increased "life span" into the data base.

The course will be given by computer and management experts who have significant experience in data base construction and management. Attendees will be given time to question and interact with the leaders regarding their own specific problems.

## About AMR

AMR is a leading management education organization structured to fill the need for a superior level of management information. It distinguishes itself from other organizations on the basis of objectivity and quality. AMR is an entirely independent educational organization, not affiliated with software, consulting, or any other type firms. To maintain its reputation for excellence, AMR utilizes the services of leading data processing experts, practitioners and researchers. AMR does not use "volunteer" speakers but retains a permanent faculty who continue to upgrade topical material while maintaining professional presentation. All AMR seminars are supported by comprehensive notebooks.

## seminar outline

### 1. Management's Stake In Data Base Systems

- 1.1 New Directions in Managing
  - 1.1.1 Changing competitive & decision-making environment
  - 1.1.2 Management strategies & expanded information requirements
  - 1.1.3 Emerging role of management sciences
- 1.2 Evolving Computer Potentials
  - 1.2.1 Range of data gathering, retrieval, storage devices
  - 1.2.2 Increased capabilities for integrated systems
  - 1.2.3 Monitoring and "early warning" systems
- 1.3 Forecast of Future Developments

### 2. Utilization of Management/System Resources in Total Design

- 2.1 Relating Corporate Objectives & System Design Objectives
- 2.2 User/Systems "Team" Approach for Optimum Design
- 2.3 Coordinating Management Needs and Processing/Control Requirements
- 2.4 Assessing User Requirements
- 2.5 Modular Design for Flexibility & Growth
- 2.6 Identifying the "Trade-offs" & Cost/Return Justification
- 2.7 Forecasting the "Life Span" of Data Base Systems

### 3. The Varying Data Base Concepts

- 3.1 The "Common" Data Base
- 3.2 Total Systems Approach vs. Integrated Sub-systems
- 3.3 Integrated, Linked, Multi-Data Bases
- 3.4 The Central Information File
- 3.5 On-line Data—Full vs. Condensed Format

### 4. The Data Base Elements

- 4.1 Identifying the Data Elements—Internal/External
- 4.2 Data Element Analysis, Classification
- 4.3 "Users" Role in Data Element Selection
- 4.4 Data Capture—Source of Origin vs. Centralized Point of Entry
- 4.5 The Problem of "Minimal" Data in Existing Records
  - 4.5.1 Availability & retrieval of additional data
  - 4.5.2 Costs & efforts to build from archival records
  - 4.5.3 Entry & validation of additional data
- 4.6 Expanding the Business Coding Structure to Optimize Information Handling, Processing, Control
- 4.7 Control & Integrity of the Data Elements



# faculty and seminar advisors

## 5. Design of a Data Management System

- 5.1 Bulk Storage Media & Hardware Considerations
- 5.2 Basic Attributes
- 5.3 File Organizations/Structures
  - 5.3.1 Serial & Sequential Arrangements
  - 5.3.2 Indexing and Randomizing Techniques
  - 5.3.3 List and Hierarchical Structures
  - 5.3.4 Multi-File Organization, Linkage Techniques
  - 5.3.5 Access Considerations, Search Methods, Maintenance
- 5.4 Backup, Restore, Restart & Recovery Techniques
- 5.5 Defining User Interfaces with the Data Management System
  - 5.5.1 User department/terminal language interfaces
  - 5.5.2 Programming language interfaces

## 6. The Packaged Data Management Systems/Languages

- 6.1 Objectives & Requirements of Data Management Systems
- 6.2 The Operating System Environment
- 6.3 Pre-Processor, Macro, Procedural & Non-Procedural Programmer Language Interfaces
- 6.4 The Query Language & Data Management Packages
- 6.5 I/O Features & Maintenance Capabilities
- 6.6 Computer Data Utilization Reporting
- 6.7 Evaluation Criteria & Trade-Offs

## 7. National Standardization & Data Base Systems

- 7.1 Current Efforts of CODASYL Data Base Task Force
- 7.2 Impact of Government & ANSI "Standardization" Projects
- 7.3 Potential of Individual "User Group" Standard Efforts

## 8. Implementing Data Base Systems

- 8.1 Phased Implementation
- 8.2 Limitation Posed by Non-Parallel Capability
- 8.3 Conversion Analysis Techniques for Optimum Conversion Planning & Efficiency
- 8.4 Evaluating/Selecting Conversion Methods
- 8.5 Anticipating the "Exception/Rejection" Problem in Initial Cutover to Real-Time Data Base Systems
- 8.6 User Acceptance of the Implemented System

## 9. Case Studies of Successful Systems

### Course Director



**Richard F. Coleman** is President of Applied Computer Technology in San Francisco. Formerly Director of Automation for the U. S. Savings and Loan League, he established their Computer Service Division and developed an industry-wide data base. As Planning Manager of Montgomery Ward, he developed the Planning and Management Information Systems for their expansion program. He has held posts with the University of San Francisco and the University of California and served as staff speaker for the U. of S. F. Management Development Center. Mr. Coleman is co-authoring a book on Data Base and File Structure Design.

**Harold Uhrbach**, Director of Professional Services with Auerbach Associates, Inc., has devoted 20 years to the related fields of systems analysis and design. Formerly an Advanced Techniques Specialist with General Electric Company, he specialized in the area of data base structure and management. He was also Manager of Applications for CDC and Manager of Computer Applications for Bendix Corporation. Mr. Uhrbach lectures at the New York University Management Institute, where he teaches data-management techniques.

**Leo J. Cohen** is a nationally prominent author, lecturer, and consultant. He has presented many seminars and courses in operating systems, communications, real-time systems, and on time-sharing and performance evaluation. Mr. Cohen holds a B.S. Degree in Mechanical Engineering, and an A.B. in Math from Lehigh University (with honors). He is a national lecturer for the ACM. He is also the author of the book "Operating Systems Analysis and Design methods."

**David P. Grosse** is Senior Consultant on The Corporate Staff of International Telephone & Telegraph. He is responsible for advising on monitoring systems and software development for ITT Divisions. Mr. Grosse has had extensive technical experience in Data Base design & software development. He was formerly Manager of Software Development for TWA. Prior to that he held positions of Department Manager with Insurance Data Processing Center, D. P. Project Supervisor with American Express, and Systems Engineer with Honeywell-EDP.

**Robert R. Brown** is Vice President of Systems Development at Arcata National Corporation. Formerly, Director of Computing and Data Processing of North American Rockwell, where he was responsible for the development of the Information Management System (MS) Project. Dr. Brown's background in computing also includes IBM, Aerospace Corporation, and the U. S. Government.

**James B. Fry** is a member of the staff of the Department of Industrial Engineering of the University of Michigan. He was previously with the Information Systems Department of the MITRE Corp. Mr. Fry is a member of the CODASYL Systems Committee and was, until recently, project manager of the Data Base/Data Management Project of Share, Inc.

### COURSE ADVISORS:

**Robert V. Head**, Author, Consultant, President, Society for MIS

**G. Gregory Smith**, Manager, Information Management Division, Advanced Management Research

**Dr. William F. Brown**, Director, Computer Services, AVCO Corp.

**Robert M. Curry**, Mgr., Product Configuration Information System, TRW Systems, Inc.

**Dennis S. Ward**, Manager Technical Direction, Advanced Development Group, Honeywell-EDP.

**Mary E. Fuller**, Systems Consultant, with URS Data Sciences Company.



# REGISTRATION AND FEES

**REGISTRATION:** Registration must be made in advance and may be made up to the time of the meeting subject to confirmation. Complete and return the below coupon or, if you prefer, telephone registrations are acceptable. Early registration is recommended, as attendance is limited.

**FEES:** The full registration fee listed below is payable in advance and includes the cost of all luncheons and meeting materials:

Data Base Design ..... \$350.

**SEND TEAMS:** Send a group of executives in order to benefit from different management viewpoints and interaction. Company registrations for three, including luncheons and materials ..... \$295 per person. Other discounts available for larger groups. Please contact AMR for details.

**CANCELLATIONS AND REFUNDS:** Confirmed registrations can be cancelled up to 5 days prior to seminar date. Registrations cancelled later than 5 days are subject to a \$50 service charge. Participants who have not cancelled reservations 3 days prior to the meeting are subject to the entire fee. Substitutions may be made at any time.

**HOTELS:** Although AMR does not arrange hotel accommodations, the hotels will hold a limited number of rooms and applicants should act promptly to take advantage of this service. Please contact the respective hotel directly mentioning AMR to assure preferred treatment.

**TAX DEDUCTION OF EXPENSES:** An income tax deduction is allowed for expenses of education (including registration fees, travel, meals, lodging) undertaken to maintain and improve professional skills (see Treas. Reg. 1.162-5) (Coughlin vs. Commissioner, 203 F. 2d 307).

## Related AMR Courses

- Managing Data Processing Operations
- Data and File Security
- Techniques of Business Systems Analysis
- Sales Forecasting and the Computer
- Microfilm Information Systems
- Data Base Design
- EDP Systems For General Ledger Accounting
- Marketing Information Systems
- EDP Systems For Accounts Receivable
- EDP Systems For Accounts Payable

**PLEASE NOTE:** This issue has been mailed to selected lists which cannot always be prechecked to eliminate duplications. If you have received more than one of these copies, we hope that you will understand and, in that event, pass this issue along to an associate.

Gentlemen: Please include me in your seminar.

## DATA BASE DESIGN

- |   |  |
|---|--|
| <input type="checkbox"/> Washington D.C.—September 27-29<br>The Mayflower | <input type="checkbox"/> Chicago—November 29-December 1<br>The Continental Plaza |
| <input type="checkbox"/> New York—October 27-29<br>The Roosevelt          | <input type="checkbox"/> San Francisco—December 15-17<br>The St. Francis         |

First name or nickname for name tag use \_\_\_\_\_

PLEASE BILL COMPANY     BILL ME     CHECK ENCLOSED

→ Please return entire coupon including mailing label below. ←

Name \_\_\_\_\_  
Position \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone (Area Code) \_\_\_\_\_ Number \_\_\_\_\_ Ext. \_\_\_\_\_

THEODOR NELSON  
NELSON ORGANIZATION INC  
458 W 20TH ST  
NEW YORK

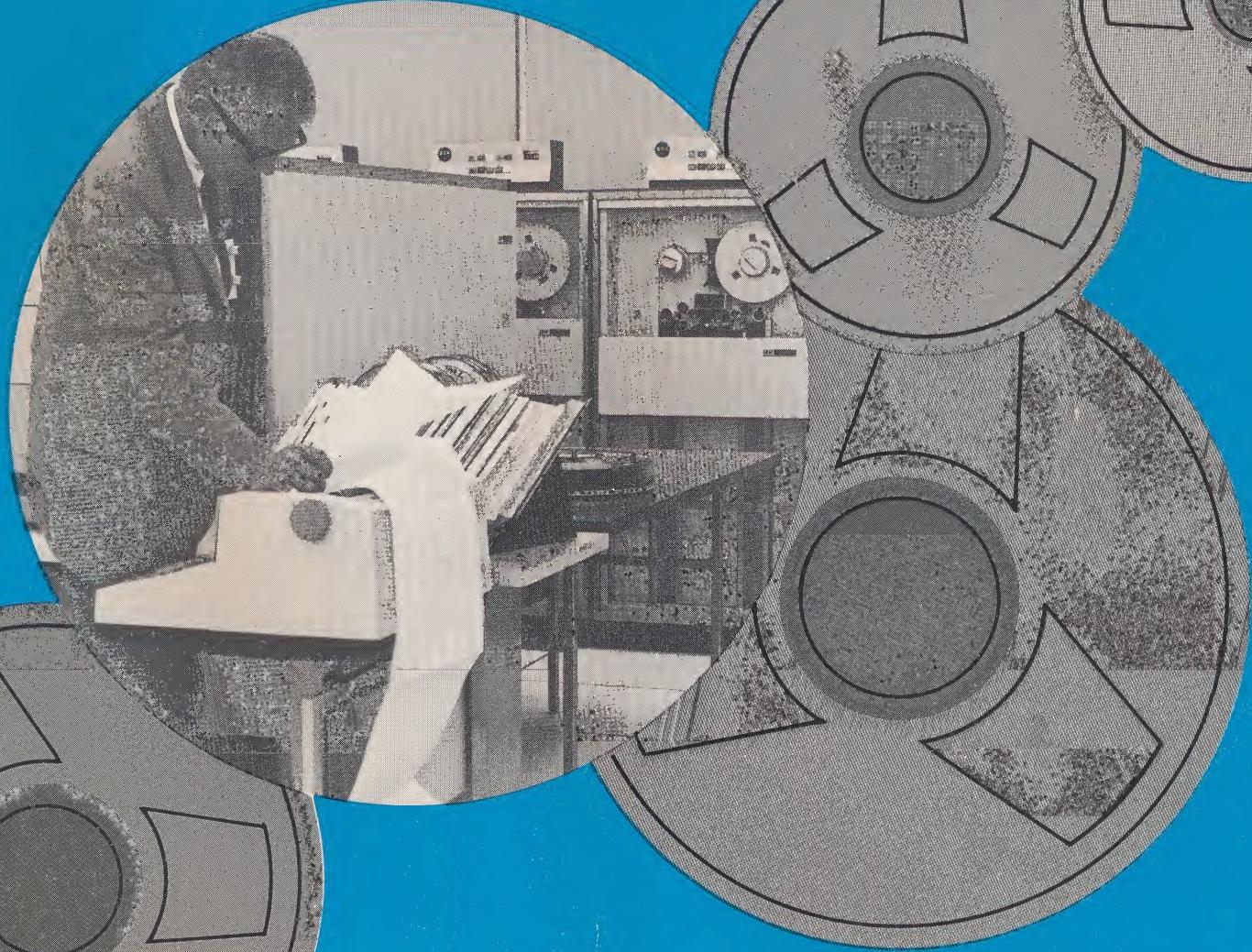
NY 10011

AMR NEWS

AMR OFFERS  
A THREE-DAY  
SEMINAR  
DESIGNED TO  
BRING YOU THE  
LATEST THINK-  
ING AND  
PRACTICE IN  
OPERATIONS  
MANAGEMENT

# MANAGING DATA PROCESSING OPERATIONS

WASHINGTON, D.C. - SEPT. 27-28 • NEW YORK - OCT. 25-27  
CHICAGO - NOV. 29 - DEC. 1 • SAN FRANCISCO - JAN 10-12  
SPECIAL MEXICO CITY PROGRAM Nov. 17-19



# MANAGING DATA PROCESSING

WASHINGTON — SEPT. 27-28

□ Key Bridge Marriott

NEW YORK — OCT. 25-27

□ The Gotham Hotel

MEXICO CITY — NOV. 17-19

□ El Camino Real Hotel

CHICAGO — NOV. 29-DEC. 1

□ The Regency Hyatt House

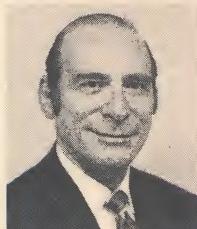
SAN FRANCISCO — JAN. 10-12

□ The Fairmont Hotel

Data processing managers this year are being pressed for greater efficiencies in operations management. New peripherals, more sophisticated machine configurations are increasing throughout but making the job of scheduling jobs increasingly more complex. Personnel turnover and lack of operator training programs continue to be serious impediments to operating efficiency. This three-day program will confront current problems and review in depth the latest practices, controls and management techniques to provide a functional frame of reference to the operating responsibilities of the data processing manager. The format comprises lecture group discussion, questions and answers and workshops. The subject material will be geared only to contemporary problems facing managers and will emphasize practicalities and realities rather than the conceptual or theoretical.

## Faculty and Seminar Advisors Include:

### COURSE DIRECTOR: SY BOSWORTH



Processing Corporation. A member of the Data Processing Managers' Association, Mr. Bosworth holds their Certificate in Data Processing. He is also a member of the Association for Computing Machinery and has been granted several patents. Mr. Bosworth is the author of various technical articles and has read papers at conferences of the ACM and the Simulation Council. He has lectured at universities, seminars and symposia throughout the country.

**DR. ROBERT W. CARNEY** is Professor Management at Georgia Institute of Technology. Lecturer, author and consultant to business on managing and motivating technical personnel; he is listed in the National Directory of Outstanding Speakers.

## Seminar Outline

### I. DATA PROCESSING ORGANIZATION & POLICIES

- A. Types of structure
- B. Functional areas and their interrelations —systems, programming, operations, research and development
- C. Service relations with corporate users: finance, marketing, purchasing, etc.
- D. Developing basic policy in data processing: setting and evaluating departmental objectives
- E. Fundamental responsibilities of the data processing manager
- F. Long and short range planning policy

### II. OPERATIONS PLANNING AND SCHEDULING

- A. Setting operating standards
- B. Documentation control
- C. Input management
- D. Job scheduling
- E. Machine utilization
- F. Operating schedules
- G. Priorities
- H. Central reporting methods

### III. OPERATING CONTROLS

- A. Source input controls
- B. Daily log and loss time reports
- C. Control by exception
- D. Tape handling practices
- E. Output management
- F. Library controls

### IV. EQUIPMENT INSTALLATION AND LAYOUT AND MAINTENANCE

- A. Equipment planning
- B. Layout principals
- C. Security and fire protection
- D. Facilities management
- E. Use of outside services
- F. Backup and recovery procedures

**WILLIAM O. HARDEN** is Vice President of Administration and Data Processing for John S. Nuveen & Co., a leading investment firm. He was formerly Vice President of Advanced Computer Techniques and Manager of Data Processing at Union Carbide Corp.

**JOSEPH S. DeNATALE** is Manager of the Computer Systems Department of AVCO Corporation. Formerly Manager of Analysis and Programming at Pratt & Whitney Aircraft Company, Mr. DeNatale was co-founder of the Greater Boston Chapter of ACM.



**FRED J. SVEC** is a Management Consultant specializing in Computer Management for the U. S. Army Management Engineering Training Agency. He performs consulting, research and training in management, computer management and operations. He has performed studies in programmer work measurement, computer work scheduling, data systems analysis and computer software and hardware. He has conducted seminars in the U.S., Hawaii, Canada, Japan, and Thailand.

# OPERATIONS

## V. BUDGETING AND COSTING PRACTICES

- A. Estimating and establishing budgets
- B. Charge-out policies
- C. Machine time accounting and billing
- D. Automatic costing

## VI. PERFORMANCE ANALYSIS

- A. Machine utilization analysis
- B. Error control analysis
- C. Personnel performance
- D. Measuring total data center performance

## VII. MANAGING OPERATIONS PERSONNEL

- A. Recruiting, interviewing, hiring
- B. Career paths
- C. Training plans
- D. Compensation policies
- E. Motivation
- F. Performance measurement

**ELIZABETH R. ALEXANDER** is V.P. of Consulting and Curriculum Development for Consultants Associated Inc., a subsidiary of Edutronics Systems, International. Formerly, she was Coordinator of Data Processing Career Development for the State of California. She has given many seminars in this country and abroad and authored several current published papers on Training and Career Development of Computer Personnel. She is a member of ACM, ASIS, ASTD, and Executive Secretary of ACM SIGCPR.



**ROGER D. ARLICH** is Director of Information Systems for Purex Corporation. He was formerly a senior consultant, the Manager of Business Information Center for TRW Systems and Supervisor for Manufacturing Systems and Programming for Hughes Aircraft.



# REGISTRATION AND FEES

**REGISTRATION:** Registration must be made in advance and may be made up to the time of the meeting subject to confirmation. Complete and return the coupon below or, if you prefer, telephone registrations are acceptable. Early registration is recommended, as attendance is limited.

**FEE:** The full registration fee listed below is payable in advance and includes the cost of all luncheons and meeting materials:

Managing Data Processing Operations ..... \$350.

**SEND TEAMS:** Send a group of executives in order to benefit from different management viewpoints and interaction. Company registrations for three, including luncheons and materials.

Managing Data Processing Operations... \$295 per person  
Other discounts available for larger groups. Please contact AMR for details.

**CANCELLATIONS AND REFUNDS:** Confirmed registrations can be cancelled up to 5 days prior to seminar date. Registrations cancelled later than 5 days are subject to a \$50 service charge. Participants who have not cancelled reservations 3 days prior to the meeting are subject to the entire fee. Substitutions may be made at any time.

**HOTELS** Although AMR does not arrange hotel accommodations, the hotels will hold a limited number of rooms and applicants should act promptly to take advantage of this service. Please contact the respective hotel directly mentioning AMR to assure preferred treatment.

**TAX DEDUCTION OF EXPENSES:** An income tax deduction is allowed for expenses of education (including registration fees, travel, meals, lodging) undertaken to maintain and improve professional skills (see Treas. Reg. 1.162-5) (Coughlin vs. Commissioner, 203 F. 2d 307).

## Related AMR Courses

**Computer and Software Security**

**Management Information Systems**

**Techniques of Business Systems Analysis**

**Personnel Information Systems**

**Sales Forecasting**

**Microfilm Information Systems**

**Data Base Design**

**EDP Systems For General Ledger Accounting**

**Marketing Information Systems**

**Production Planning & Inventory Control**

**Mini-Computer Briefing**

**PLEASE NOTE:** This issue has been mailed to selected lists which cannot always be prechecked to eliminate duplications. If you have received more than one of these copies, we hope that you will understand and, in that event, pass this issue along to an associate.

vol. 2, no. 107 september 6, 1971

amr news, published every monday, wednesday and friday by amr international, inc., 280 park ave., n.y.c. 10017. second class postage paid at new york, n.y. and at additional mailing offices.

Gentlemen: Please include me in Your Seminar

## MANAGING DATA PROCESSING OPERATIONS

- |  |  |
|--|--|
| <input type="checkbox"/> Washington — Sept. 27-28<br>The Key Bridge Marriott | <input type="checkbox"/> Chicago — Nov. 29 - Dec. 1<br>The Regency Hyatt House |
| <input type="checkbox"/> New York — Oct. 25-27<br>The Gotham Hotel           | <input type="checkbox"/> San Francisco — Jan. 10-12<br>The Fairmont Hotel      |
| <input type="checkbox"/> Mexico City — Nov. 17-19<br>El Camino Real Hotel    |  |
- First name or nickname for name tag use \_\_\_\_\_
- PLEASE BILL COMPANY       CHECK ENCLOSED  
 BILL ME

► Please return entire coupon including label below ◀

Name\_\_\_\_\_

Position\_\_\_\_\_

Company\_\_\_\_\_

Street\_\_\_\_\_

City\_\_\_\_\_ State\_\_\_\_\_ Zip\_\_\_\_\_

Phone (area code)\_\_\_\_\_ Ext.\_\_\_\_\_

4072

THEODOR NELSON  
NELSON ORGANIZATION INC  
458 W 20TH ST  
NEW YORK

NY 10011

**amr** international, inc.  
ADVANCED MANAGEMENT RESEARCH

280 Park Avenue  
New York, N.Y. 10017